Pocket Notebook
PN 22-01-24 (1922)

This notebook dates from January - June 1922. The pocket notebook contains notes by Thomas A. Edison relating to experiments with chemicals, chalk, phonograph record masters, Ford starter batteries, reproducers and Ediphones. The notebook was originally found at Glenmont.

EDIS 110240

7000

800
200
160000
6
960000

2 ft.

370
3
11100

27) 960000 (35500
81
150
135
150
15

400
800
1200
5
6000

10,000 Cubic yds 35000
@ 105.00

ft
27 | 10000 (370. 35500
81
190
189
1
18
284000
355000
639000

370
15
1850
370
5550
7000
12550

☆3346

110,240

PN-22-01-24

110,240

Cost of single [illegible] cell
Labor + Material only
no overhead 35 cents

16 Cell crate according to
shop Labor 2.96
Material 4.20 —
Total 7.16 —

~~8325 pretty good — Novelty flash~~

~~Old tune gvr 8326~~
~~8324 — fair to good~~

~~Length h car room~~

~~21 X 120~~

~~This gives 240' long~~

~~21 wide~~

Old Committee is to
decide Dance, jazzy
low down stuff
Edison as Umpire

A new Committee to
be formed
TAE
Charles E
Dykeman
Simpson
Folsom
Bradshaw
Meadcroft
E Umpire
to Decide on good
Class of Music

Carter figured on 1 2 3 4
5 + 6 Varnish machine
1 girl to see which is best
number to use on my
Time Schedule

1 Hour Product

			increase
1	Mach	84	= 84
2	"	153	69
3	"	212	59
4	"	262	50
5	"	305	43 Limit
6	"	324	19

Saving by new Excise law
on Phonos & Records

Amberola 30	—	.88 cents
50		1.37
75		2.29
Hepplewhite	—	2.90
Sheraton	—	3.38
Chippendale		4.40
Wm & Mary		6.00
C 450 Adam		9.92
Disc		3 cents
Amberola		1 Cent

{ Lab 63

Examination under Micro
of Substitutes for Chalk

Kieselghur fibres very fine in size
Silicon 400 Mesh finer than chalk
China Clay finer than chalk
Fibrous Magnesium Silicate
3 or 4 times coarser than
Clay. has some larger pieces
probably ground in a Mill
Rotten stone 3 to 4 times
finer than Clay - ground
in Mill

Plaster Paris too coarse
Blanc Fix - nodules, 20 mesh
smooths out with pressure
of finger to as fine as China
Clay or finer

Chalk not as fine as
China Clay or Silicon 400
mesh -

~~Silicon 400 — Rotten Stone~~
~~Little finer, will answer probably~~

~~Get floated Barytes~~

Sloane Maranka
OK for a 2nd side of
a special

~~Mammy Lou~~
~~not good tune, harsh in~~
~~spots, Melody poor -~~
~~I wouldnt Care for this~~
~~dont think it would~~
~~sell - Could be held~~
~~for future disposition~~
~~if records are good~~

~~8333. 2nd class. Fox Trot.~~
~~interference, not as good~~
~~melody, Confusing sounds~~
~~not sharp or clear. Might~~
~~do as 2nd~~

8332 Oriental Moonlight Fox Trot 2nd Class no melody has Xylo which appears at as a 2nd + from repeat

Hear Mary Clarks Voice trial - 11 yrs.

Floated Barytes
Dally grinding 67%
thru 180 mesh
~~not very good~~ surface
615 grams - Lost 2 out 3 - Var blisters. Varnish perfect clinch

Pumice alone -
Dally grinding 2 hours
72% thru 180 mesh
good surface · E
Fair for Wears
3 punched 3 ok
perfect Varnish clinch

Rotten stone 3 #
73 thru 180 Dally ground
2 hours 4 records all
ok - Surface louder
than pumice Varnish perfect clinch

Best of these 3 is
pumice

None of the 3 showed
any soak in of 1st
Coat like Reg blank
Varnish clinch poor
on Regular Compared
to these 3 -

Weights of above 3
is
Barytes 615 grams
Pumice 475
Rottenstone 445

Drop test Pumice
1 - went twice at 4 ft
1 " 5 times at 4

Rotten S Drop 10 Times
P. 3 times

Using different powders
instead of Chalk with wood
flour & Rosin —
It is clear that the surface
improves when more Chalk
is used & less wood.
With 4 wood, 3 China clay
& only 68% thru 180
after ground in Balley.
poor mill the surface
is very good better than
with Chalk 88% thru
180 —
If now 1/4 less China
clay is used, wood flour
increased to have same
proportion — The surface
becomes poorer & when
only 1/2 of Clay used
the surface is horrible
If the mix was ground
88% thru 180 these horrible
surface will improve

But China clay does
not give a good clinging
surface — ~~with~~ to Varnish
& ~~we~~ have discarded
but when pumice
stone used the 4-3-1
gives a pretty good
surface, when 72%
thru 180 & clinch of
Varnish is perfect.
Same way with Rotten
stone but surface not
so good as Pumice —
which also has a
perfect cling of Varnish

believe these two can
when proportioned
& granted 88% thru 180
give a very fine
surface!

I washed out by floating
the Rotten stone &
about 1/10th is coarse -
& considerably less than
width of Music
Its already been floated

Felspar shows residue
wider than music
groove, Felspar from
Trenton - large part
is very fine float like
chalk

Pumice is mostly very
coarse residue
some 2 to 4½ times
larger than music
groove & clean of
fine float, which clings
to Felspar,
As both Rotten stone
& Pumice the

Varnish clings
powerfully -
it is a question of
surface & proportions
between them,

So we can confine our
Experiments to Pumice &
Rotten stone -

But Pumice is very
large - To get comparative
Results our Pumice
should be ground
as fine as Rotten stone

I note that there is a
considerable residue
of Pumice caught on
100 mesh screen
1.2 [illegible] times larger than
music groove

Mambert in Valuing
the patents at 7 Too good
why not state the
Cost of Experimenting
& apparatus necessary
to put the patents
in Operation –

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2 things we must do
when we start mfg
phono —

1st attachment so records
put on in the dark

2nd if possible no record
lifted off the turn
table easily

3 auto stop when End
of record

4 – all records grooved

8336
Dark Town Rehearsal
not good enough for a
special passed for
Reg sup

Tyrol. passed as flash
good musical value
fine Tone Music
fine — no d—d violin
to spoil it as I can
see

8338 – These days
are even good
music value –
[illegible] no musical
interference good
passed as flash

The Sheik – no musical
value, no novelty
monotonous, jew push
"Fox Trot,"

80678

~~Prelude Tristan & Isolde
End of 1st Strain of
music a very short
high note some of
Brandeys Repdrs Cant
hear it — Reg Reprdr
hears it Comparatively
loud Useless for
laboratory Repdrs~~

Test Record

~~See if many other words:
The Music Notes for
us Cant take Harps
place —~~

~~Masters should not be
polished but only cleaned
with brush, old masters
if Chatter marks are
polished away bring out
black spots & holes
The whole of the polishing
should be done on
female~~

~~Pull on Earth to keep in
orbit
3.200 000 000 000 000 000 Tons~~

~~Pieces of Nickel adhering
to a Master Can be
removed by immersing
in 20% Sol H_2SO_4 at
160°F for 5 to 10 hours~~

~~Search made on
Ford Starter Patent
of Handy-~~

~~Rep~~ Use lead wire
on mould holders
again - We dont use
liquid now and will
probably work fish line

Blisters - Investigate
DOEW + possibly not
enough stuff baked
out

Jan 24 Schedule on
print presses

4½ min Contact
2 " Low 135 lbs
8 " High 1000 lb
5½ Cool

get just as good results
with 2 Contact
2 Low
8 High
5½ cool

Knowles Expts 6/4
Dec 29

Reg 4% 6/4

6.1% Blisters }
12¼ Pull Outs } 18.5

7.9 6/4 Reg

3.8% Blisters }
4.4% PO } 8.2%

15% 6/4

0 no po
1 7/8% Blisters 1.7/8

Sleepy Little Village
"Flash" A1 Flash
passed

Dope 8/10
7.36 grms Glucose to
2000 cc DE volume
Alcohol - 3.8 grms
per liter -

Find that Leybach tune
for Piano from Norma
Perhaps it might another
name like Leybach.
We have Vol 2 get Vol 1
it may be in that -

8348

Regular [illegible]
Fox trot, melodrama
nothing new -
might do as 2nd
all treble

8347 - Medley Fox T
musical -
all treble -
Slightly new - 2nd if
can't get an A1

Cheapest K2O before
war 2.75 lb.
55 @ 57c/unit 20 lbs

8351 –

Plenty of accent
ok good dance
Value – fairly
musical but
brassy –

passed A1
Gant

8352 about
same as 8351
good dance Val
+ musical
little brassy on
melody but
good

both have a snap +
pep + is what we
want – The accent
is better on 8351
being louder
whereas 8352
Has louder treble
+ less accent
passed A1 Flack

1.3	lbs Gauge Pressure	216° Fahr
2.3	"	219
3.3		222
4.3		225
5.3		228 –
6.3		230
7.3		233

In the Groups we have 873 Records
Year ago we had printed
1436 Records.
Since then 225 yearly

~~Make wax test Vic~~
~~Brunswick, Wealth~~
~~Sleeving~~ —

~~Full Records~~

~~Edison~~	~~10"~~	~~4 min~~	~~39½ sec~~
~~Vic~~	~~12~~	~~4 "~~	~~10 sec~~
~~Vic~~	~~10~~	~~2 "~~	~~52 sec~~

Feby 2/22 16560 prints
inspected -

~~Spots 3.3%~~
~~P Prints 5.7%~~
~~Veneer PO + Blisters } 7.7%~~

3968 Total lost ~~76.4%~~ 76.4 % OK

~~After Pnd process ok~~
~~Take hold blank press~~
~~+ find the constant steam~~
~~pressure that will make~~
~~blanks mould at a steadier~~
~~temp than set.~~

~~Schmuska uses 10 grams Spod~~
~~or Felspar + 5 grams solid~~
~~caustic lime per test~~

Columbia Grafone
47 million 1920 19 million 1921

8355 –

Rotten ~~many do~~
~~for Order type not~~
~~a flush no Lino~~
~~no mount –~~

8356 –

No Cure, ~~Continue~~
~~on order not a~~
~~flash –~~

Oxygen at Muscle S can be utilized
after N abstraction for high temp blast
furnace for Ferromang etc or
for Acetylene Welding of some
article where welding is the
principal Cost. (Ford)

Anson G Betts, Chem Eng.
January say Oxygen can be
made $2. per ton.

Matthewson rate setter
in 24 – ~~set rate for~~
~~piecewk without~~
~~any sense Upstairs~~
~~pressmen making~~
~~63 cents hour~~
~~outrageous~~

Feby 7/1922

New idea - The schedule
around 200 to 230
Fahr gives 95% ok
records but remarkable
thing about it is that
there is no poor prints

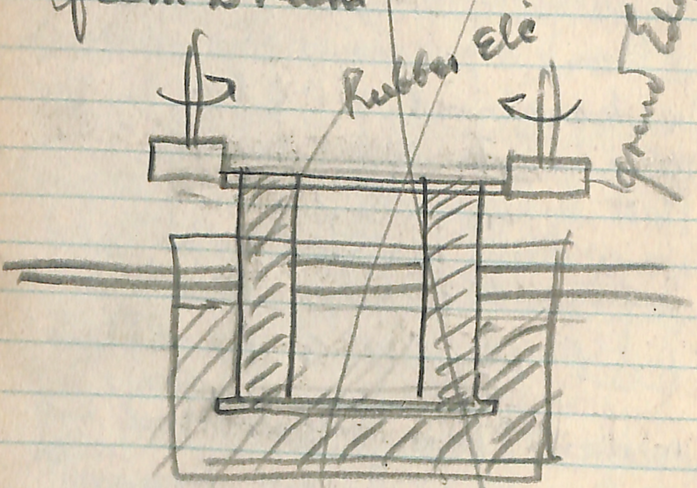
Think I can explain this
& its new at above
temperatures Rosen
is soft & can be pulled
out in threads -
The fibres are all
Coated with it & the
blank will flow.
OK - but if temp is
too high Rosin melts
to thin liquid runs
in between fibres & they
touch & the friction
is so great blank
dont flow & we have

poor prints -
The whole thing
is to soften blank
around 200° Fahr
3 min contact &
2 min low - then
sock on 1000 lbs
& put steam on
The steam rises
rapidly & at the point
where rosen acts as a
lubricant & before
melting of rosin
the blank has flowed
& is OK & then it
afterwards melts
but it dont matter

now the Blank is
Ok & no poor print
possibly if Combn with
the Calcite takes place

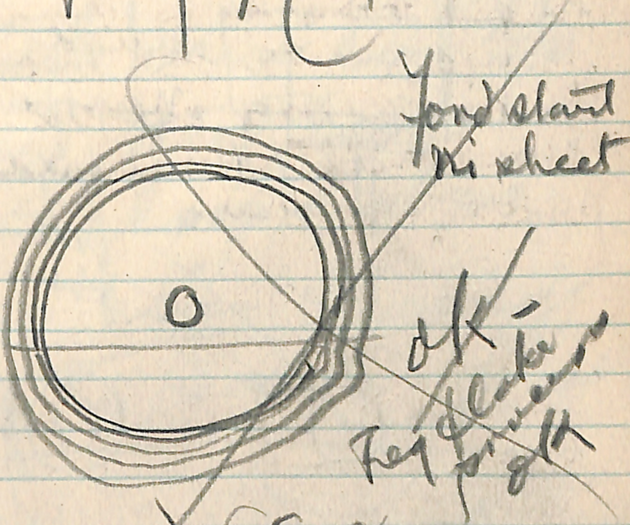
at high temp it dont
when rosen is viscous
stage & we get the
flow before rosen
has melted & united
with the fume

Ford Starter Nickel
film Drum


Rubber Ele
ground Wire

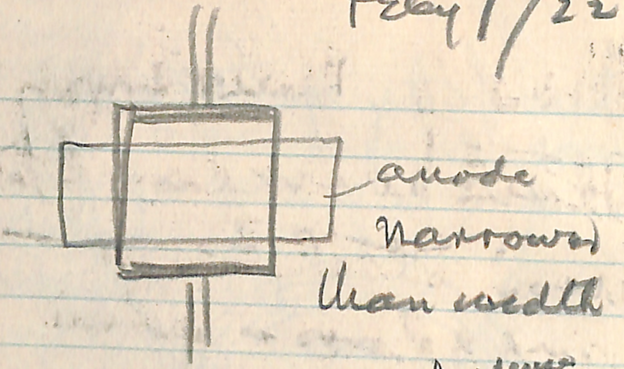
February 7 (1922

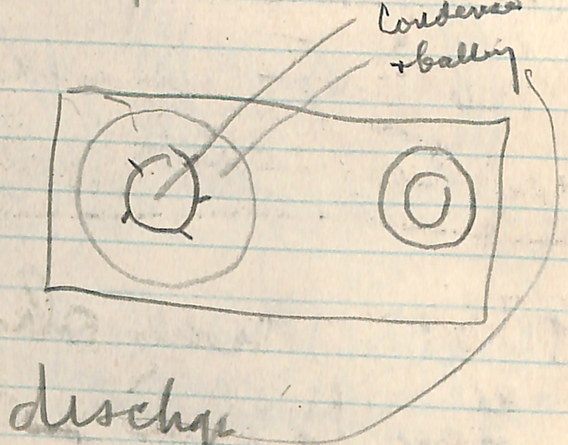
Feby 7 (1922

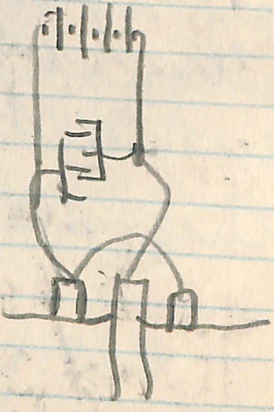

Ford start
Ni sheet
ok
Fel flakes for weight

Unwind - Sel on
outside keep on till
gets too rough —
Then of .002. can
put 20 layers on
& then unwind

Feby 7/22


anode
narrower
than width


Condenser
+battery
dischge



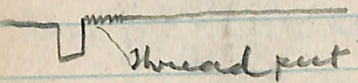
~~M+S 3 Mill+Supply~~
~~Stock house can be~~
~~used Steel bins —~~
~~3rd floor — also~~
~~no bins space ok~~
~~up to Saws will use~~

~~8360 — new show~~
~~x fair to good not~~
~~much of a tune~~
~~8361 — new show~~
~~fair to good~~
~~good accompaniment~~
~~clear no interference~~
~~tune F to G~~

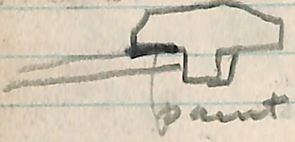
8363 A1 flash

~~8762 [illegible] A1 f~~

Try fish line soaked in Condensite Varnish warm & then Baked, then used to pack mould holder


thread put tin foil over

Paint mould ring inside & bake use Condensite Varnish



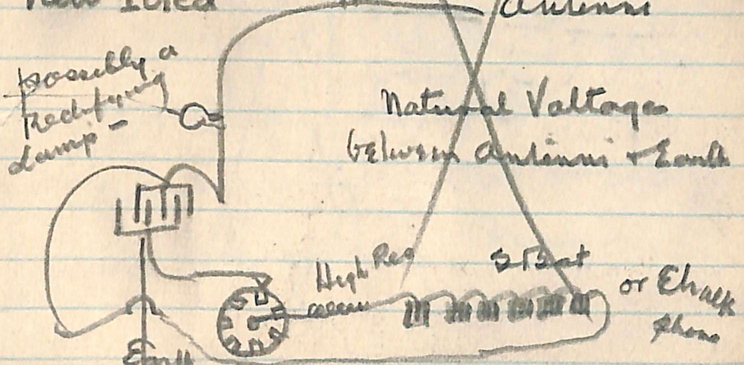
Celluloid painted, dried.
Rubber dope

Peachy rings
moulded
J. Old

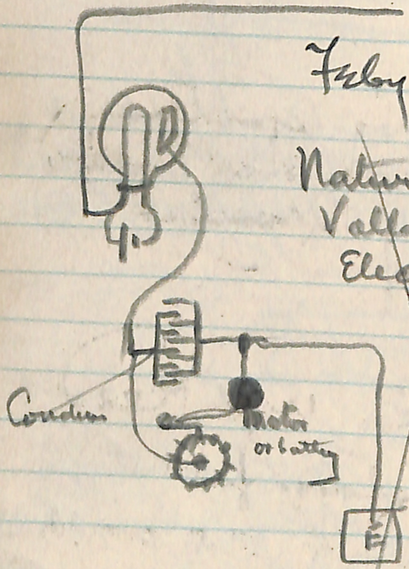
get name of man in power & maintenance Dept who discovers the bent Columns 5th story #24 Bldg maybe good [illegible] What's salary

Rosin – is fairly pliable at 125° F. It begins to soften at about 105 melts 155 @ 160

New Idea Feby 1922


Antenna
possibly a rectifying lamp –
Natural Voltage between Antenna & Earth
High Res
3 Batt
or Chalk phone
Earth

~~See if Certain types of~~
~~Needle Machines can~~
~~be allowed over to Edison~~
~~Cabinets + under what~~
~~Scheme can they be sold~~
~~+ How much allowance~~
~~on Exchange Proposition~~



~~Feby 1922~~

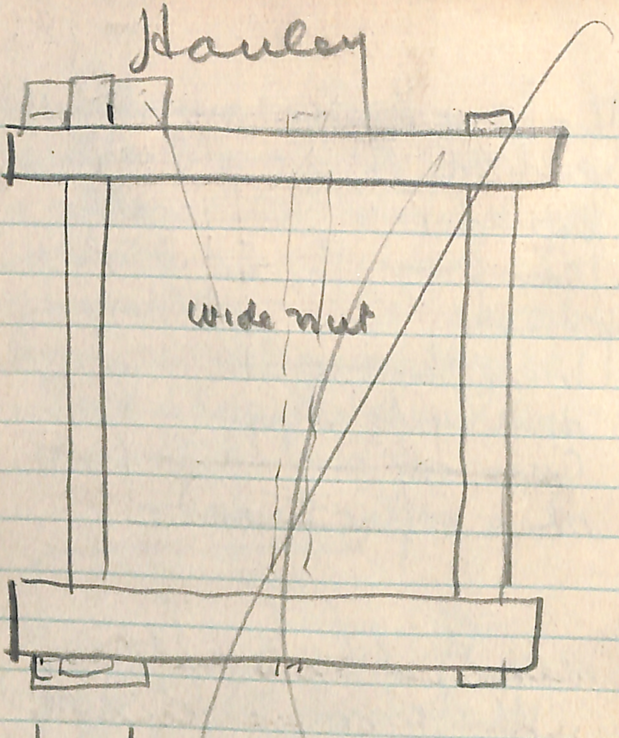
~~Natural Earth~~
~~Voltage~~
~~Electron bombardment~~

Make a Reproducer which
will be ½ the present
loudness + that will
suppress the Scratch -
possibly the scratch is so
high that a Weight on
dia will suppress it -
Can use slightly lever
also softer thread -

~~see Gibbs Spotting~~
~~Machine not good~~
~~planing Machine~~
~~not used -~~

~~Cronkite use Reed~~
~~Orchestra for~~
~~singing - as well~~
~~as Venetian Trio~~

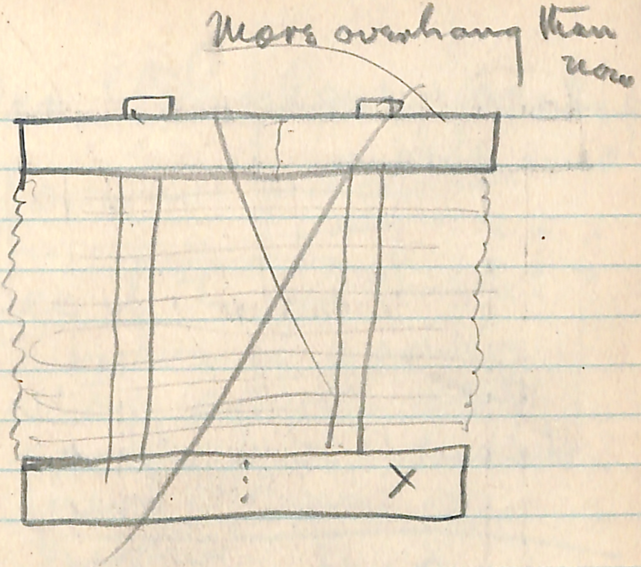
Hauley



perhaps a Center bolt

To stop Cambering in Center.

or divide thus



Same as now but Case hard X or use crucible steel so stiffer -

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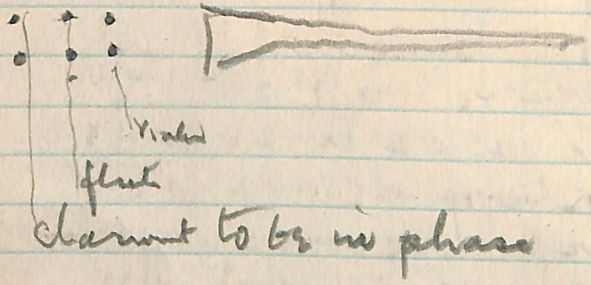
~~figure out length of funnel that will give same opening without a flare as with present flare also get the angle used if it Cant be a little steeper + also 100 ft with a 10 to 12 ft flare so less muffle~~

possibly placing same instruments
same distance

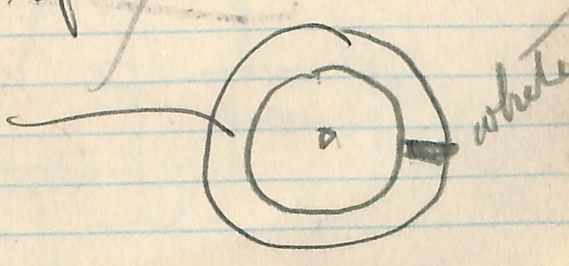


~~Put Ediphone in hands~~
~~of Payne to design~~
~~& make salary increase~~
~~Equal to the year~~
~~he lost from Government~~
~~8 per week if he gets~~
~~40 make it 50'~~

~~See Whalen about~~
~~Governor pads →~~

~~See if its possible~~
~~to have a positive~~
~~stop about 85~~
~~so if govr reaches~~
~~there it Cant go~~
~~higher,~~

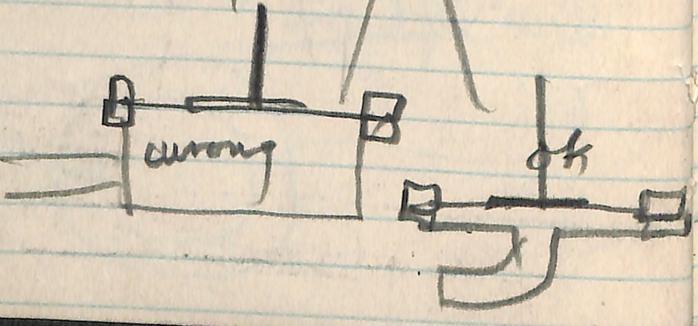
~~To Time Old phonos~~
~~paint a white spot~~
~~on the felt of platten~~
~~see if can time it~~
~~ok~~



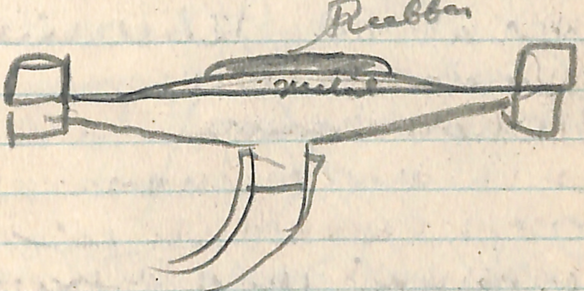
~~When new presses fixed all platens must be ground off on faces & hardened steel bits put on Ejectors~~

~~When started a test is to given Inspector & no departure is to be made without permission~~

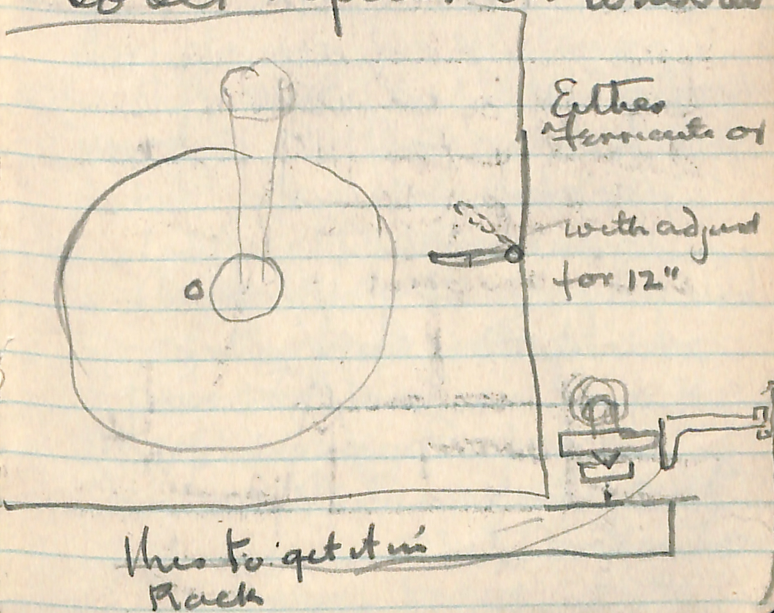
~~The Tromp on Eclipse has probably too large a chamber in depth & for amplitude probably too great a diameter~~



for reading think should have considerable dia & small chamber


Rubber
metal

To set Repder on Consoles


Either Permanent or
with adjust for 12"
this to get it in Rack

~~See Taylor & inform him~~
~~of absolute necessity of~~
~~Have Customers Machines~~
~~set at 80, tell Walters~~
~~Carter & all the men~~
~~& show how —~~

~~Pick out some of the~~
~~old recorded stuff~~

Moore 1920 4000 1921 1000 in June

~~Started Dec 19~~
~~62 days sold 19 phonos~~
~~Orange & Alhambra~~
~~to date Feby 22 1922~~
~~practically 3 men~~
~~2 good 1 slow none~~
~~4 good men should have~~
~~sold if as good as best~~
~~2 men - 2, 30 machines~~

~~Try wear test before~~
~~& after cleaning with~~
~~Alcohol without dope~~
~~& clean fresh Rag~~

~~See if Kurtzer didn't~~
~~use Harris rag Co~~
~~Clean —~~

Feby 23 - 1922

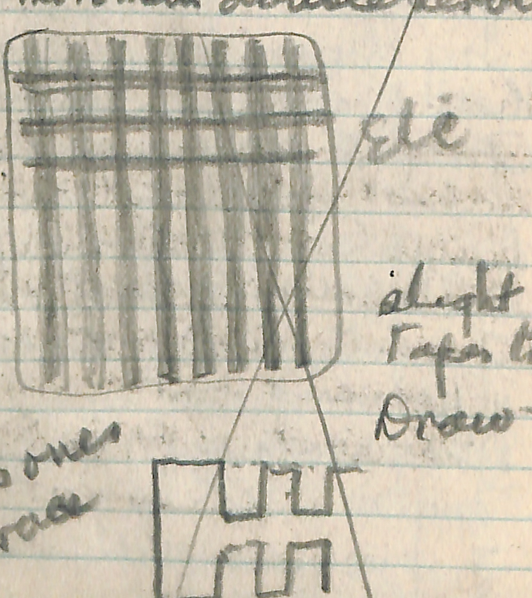
Try drum for plating
Sheet Nickel for a ford glacier
Grafite drum, pressed up
also FeS, Cast drum
Polished Antimony drum
Ni Selenide Cast, or pressed
Grafite mixed with binder
& pressed hot
Magnesium Drum —.
Try on strips at first
Try regular Natl Carbon Co
Carbon baked over

Try Lead, Tin ~~Zinc~~
but both may hurt bath from acetic acid

I think we can use Reg Ni flake drum + put on 20 to 50 layers Cut to size + dissolve out Copper for Ford battery

gives more than double service

Feby 24 1922



Advertising Expenses & Sales

1915	$113 000	Sales ~~of Machinery~~	
1916	225 000	"	75 000
1917	281 000		79 000
1918	160 000		70 000
1919	475 000		123 000
1920	1.136 000		142 000
1921	572 000		33 000

Local Mac jobbers think
List 600 45% to jobber
30 dealer jobber should
man to instruct a
local Repair man
80 cents hour for Repair Man

Jany Disc 300 000 Records

Labor Mfg & Maintenance	48 800.
Material in production	18 800
Steam without fixed chgs	5 216
Water	2.234
Electricity	4 903
Factory Supplies	3. 750
Stationery - Non durable tools, trucking freight Supplies Lab a/ Powers $ gas & air	2,120
Repairs on Equipment	5. 523
Fixed chgs —	
Depreciation	12 000
Rent	4 334
Interest on Investment	5 041
Insurance	2 053
Inventory adjustment	3000
Powers fixed chg	5 847
Administration chg	2 703

this is 16.21 per print
6.20 "
1.73 "
0.74
1.68
1.25
0.74
1.84
30.52 Cost of a print

cut
4.00
1.40 — off
1 68 — off
0.68
1.00
1.94
0.96
11.69
36

Really only
5.92 ~~3.6 Cent~~
~~should per~~
~~Cost~~.

a 2% or Records 38.22

34.12
36 Cents Covers it

Cast gaskets of Peachy
Rubber for phonos to Ogden
L. Ott.

Reclaimed flake from old
dried tubes by ~~[illegible]~~
~~[illegible]~~ his special
process

after 16 heat 1223 Slight
tubes

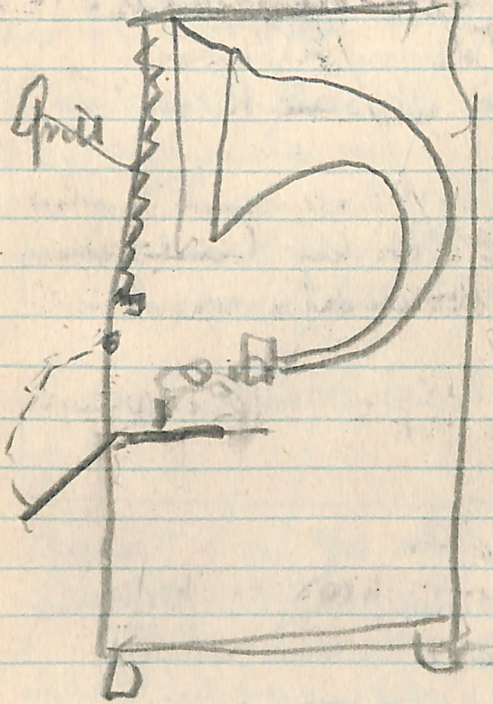
3rd run cold
1060 — 1103 1143

after 10 heat
1207 1240 1257

feeds bad, thus will be OK
as well only use 10%
with new.

Reclaimed hyporats
only 950 @ 1048
must be dissolved

Super Phono



Get a man to start
filing General Stock
Dowse a mechanic

Feby Inspectors

North Hand. Bissell Burke
Gantz – J Burns R Loudon
Woodfin Glasnell Rosenberg
Heald

Taylor — Walter Carder
Mackey Mowat.

Aron Shapiro Manning

Orange system
Sells 4 Chippendales Month
Receives $120 advance [illegible]
134 boxes of records sells
134 Records —
For Records receives $40 –
Collects from 4 machines
1.60 each Receives 6.40

Total 120 advance
40 on Records
6.40 on Collections

41.60 weekly
166 40 monthly

Orange should be a
45 off on Machines & 40
on Records – see Halsey
this will raise Commission
to Outside men
on a Chip at 45% off
from Jobber Dealer
will get $67 + furnish Ford

Agent gets $65.20 instead
of 53.

Agent on 40 off from
Jobber to dealer gets
53 & Dealer 65

New way 45 off Agent
gets 65 20 dealer 67 –

Lubs Pins should be
280 – Records are
or should be 285

Coal costs at Orange
$5.92 - 2000 lbs -

Of the 4000 odd names
of owners Halsey said
he had from NY sales
& which he mails
I find by going over
138, with 414 names
on only 206 live
in NY Brooklyn &
the Bronx -

or 2000 really live
in NY Brooklyn &
Bronx -

Total sales 5 months
all records

1.292 000

421 300 dance
Records -

Dance Records 33 1/3 %

See Gibbs & see if he
Can put Repeating
device on Loud phono
Superphone

Consider Loaning
a Vic own an Edison
Repder & make him
member of club
get Cost Repder

~~Whalen get device put a~~
~~Lock governor on~~
~~Orange & other Machines~~

~~100 000 Piano & Player Piano~~
~~made - pre war 300 000~~

~~Reg Records Havens Dept~~
~~show visible wear 3 times~~
~~over plain Alcohol~~
~~average 150 with 8/10~~
~~Alcohol - not enough for~~
~~circulating records~~

~~Why cant we use~~
~~3 men on table~~
~~instead of 5. fix~~
~~get 93 @ 95%. Oks~~

Perhaps a Lelande cell could
be made with sheet Zinc +
Copper ox asbestos using
Copper foil + Zn flour
or sheet Zinc itself just
Like Edison Ford Lelande
is made Mch 1 1922

~~Bug delay between~~
~~owners & dealers in~~
~~Exchanging Reproducers~~
~~Stupid system~~
~~fix it. Tell Charles~~

~~Ediphone order~~
~~$150 mica dia~~
~~Cut~~ —

~~Paste Label giving~~
~~description on [illegible]~~
~~Red [illegible] along~~
~~Envelope - ok~~
~~Paulling -~~

Victor record

.090 thick -

~~Harry Barnes [illegible]~~
~~by Phoning a good~~
~~man to Collect for~~
~~Genl Stock house~~
~~Later will also~~
~~Recommend a man~~

101 400 blanks
97 551 OK

~~Salary 247.~~
~~Mix Grind 67~~
~~Piecework 1788~~
~~Time work 271~~
~~2978~~

~~Week ending~~
~~March 4/22~~
~~Material 2.45~~
~~0305~~

~~Look up an attractive Calendar for~~
~~our phone owners & mark~~
~~by distinctive mark dates they~~
~~should Come & get their records~~
~~in Each month for a year~~

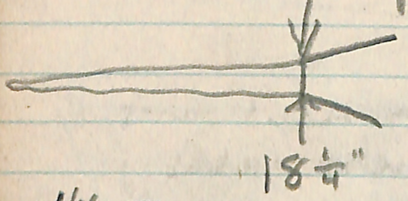
~~Take up matter of giving Each~~
~~Clubmember after a while~~
~~The Spot Record showing how~~
~~Each Nation plays a tune~~
~~these with Compliments of~~
~~Mr E - as a service stunt~~

~~Keep at Chandler until he~~
~~gets (exchange of [illegible] form)~~

Taper on big funnel 1/2" per foot
of flare 6 3/10 per foot

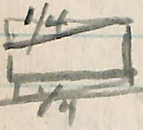
Length 37' 8" 1/8

Length of flare 4 ft 7 3/4 inches



Small end
1 1/2 inside

6 1/2" without flare
when 125 ft long



or dia increased 1/2" per ft

Freight on Chalk
Cement works $2.20
to Orange.

Dont forget to finally
arrange for minimum
& Maximum block room
supplies for Rose the
result of drachers
work

Test by our selling
boys - Turn table

Edison	1st
Brunswick	2
Columbia	3
Victor	4

Mch 8/22

Purity in Dancing League
adopts following measures per Min

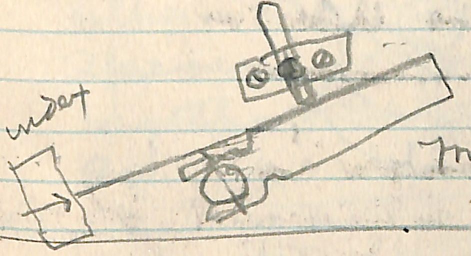
Waltz	48	2 step	54
one step	64	Fox Trot	40

Eve Sun Mch 9/22

~~Buchanan about~~
~~increasing Dia of~~
~~Exhaust steam pipe~~
~~Clean to sewer~~

~~Campaign to~~
~~print different blanks~~
~~Dailys with Variations~~
~~also our Reg work~~
~~Variations to get the~~
~~Smallest grain surface~~
~~from using a selected~~
~~Moulds Edison Co~~
~~test — When I cannot~~
~~hear any surface~~
~~it will be satisfactory~~
~~on a branched mould~~

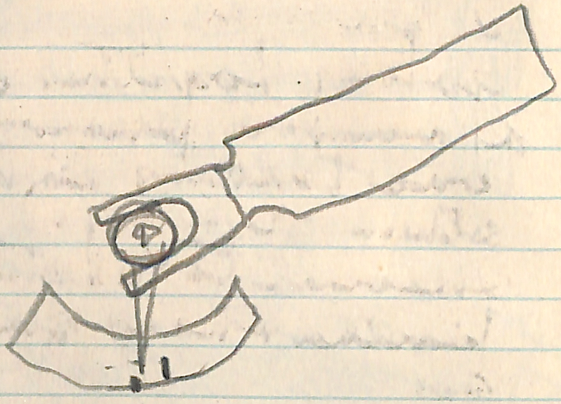
Stop for Console
put stop on let down handle
then it will be OK see Whalen
Can swivel it & make it OK for
10 & 12" March 8/22



may not work
Try a Mirror

~~Hardy Look up spec of Victor~~
~~tone arm as they make it now~~
~~is patented still, think is run~~
~~out~~

Ask Hardy if late patent
on setting Repdar



~~Walter Miller Track 3~~
~~blanks for me for test~~
~~for surfaces use good~~
~~wax + play Piano~~
~~at intervals like the other~~
~~ones you made~~

Theodor

~~5 phones~~
~~going together as~~
~~a minstrel show~~
~~one talking to the~~
~~other - Arranged~~
~~special to start~~
~~together + keep fairly~~
~~so~~

~~Iron Mtn Chapin Mine~~
~~Ford Lumber Camp~~
~~Can furnish hard lumber~~
~~or is going to put in Veneer~~
~~mkg mach -~~

If Warehouse money not enough
Let Taxes Collected to run
the Govt be delayed 1 yr.
& Scatter the time of Collection
Issue Currency to run the Govt
& then Collect the taxes
over a whole year &
retire the Currency
This is doubtful
proposition

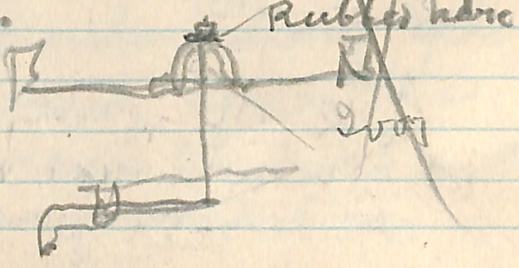
of the immense amount
of real Commodities
& investment which
the farmer gets no
interest: The Mechanism
of distribution gets
interest, hence the
farmer should not
pay interest on

Currency issued for the
producer until he is
willing to sell & get
the Value he is
entitled to -
The Bankers Control
one Commodity to
wit gold they get
by inflation large
interest on the
Commodity -
The farmers Commodity
gets no interest

~~Note - Warehouse Commodities have an advantage of gold as a Commodity in the Warehouse as they Cannot be drained out of the Country as Cheaply & quickly as gold & thus Contract the Currency but this is not very important with a Right system~~

~~Make a Reinforcing funnel & Sounding dia for each tone of piano by octaves~~

~~As the steaming surface of records must be very high Think Could be Cut out by Rubber~~



~~Threaded Rubber hose for upholstery packing~~

~~Advertise Audio Gallery in Newspaper - find sales~~

~~Get both ends of wave for Mologh with 2 Edison Thermionic Valves - This will more than double phone loudness -~~

~~Get 2 stages and you set & listened to at birthday dinner & substitute Mologh for Bell Receiver put in Library~~

~~See Map Ry & find how Jones Section & - Get Brooklyn & Bronx & L I~~

~~See Hardy & fix up further~~
~~patent - Batteries not~~
~~too low & not dry~~
~~regenerated with acid~~
~~dip only~~

Patent treatment of
Iron grid best treatment

~~Folsom Make some~~
~~discs for Hanley 1½/1000~~
~~Several layers~~
~~Cu Ni High rate~~
~~test -~~

~~Test Bradys reproducer~~

~~Try & get a Sears~~
~~Writer who knows~~
~~how to place instruments~~
~~& if possible a~~
~~Leader~~

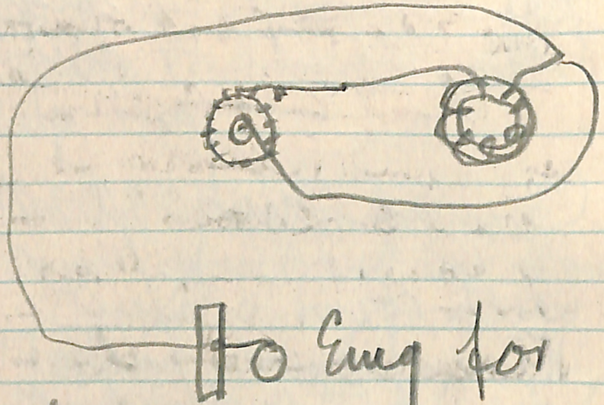
~~Try a Recorder with~~
~~Multiplying wheels~~
~~like loud phonogh~~
~~Rawhide friction~~

~~Connect Emg Chalk~~
~~with gear & spindle~~
~~thru a spring [illegible]~~
~~ment to get rid of~~
~~grind —~~

Rig up old X ray wheel
1/16 close 1/16 opening
1000 Rev & use Magnet
& Compressed air
to blow spark use

Ring of iron wire
wound with 1 layer
of 1/16 to 1/8 wire

~~xxxx~~ This will give 8000 per sec



To Eng for old Etheric

~~[illegible]~~

Get a set so can Turn

Push old Etheric Scientific American article & search

Transactions Soc Tel Eng
, Electrician & all
the Electrical papers
~~for that Statement~~
of Lord Kelvin —
also Sylvan T —
Phil Mag — also
Beards article in
that medical
Journal —
photos of Paris 24
apparatus —

Dr — of testing Lab - cheap.
book radio I pay -
Hunt up everything Etheric
photo apparatus Exhibited Paris

Make Recording app or change
old one for 12" Books
Dupping from 10 inch in
Sections ~~at~~ 40 thread
+ 40 Rev in attachments
to lift feed screw & speak
Repdr to go on Reg phono

Radio Engineers hand phone
stations numbered Each
Engr repeating Station he
is in - Head Engr knows
Where train ahead & behind
is right on his machine.
Could have train do it
by Morse signals -
with their greater density of
traffic. Old Lehigh Valley
system -

Apl 20/1922

~~Blankness should be made~~
~~like new print process~~
~~Save steam & better Quality~~

~~Design Reg Cabinet Machine~~
~~for $100. & 75 list - see Burns~~

~~Make E reproducer for~~
~~Columbia Cheney -~~
~~Brunswick & several~~
~~other machines~~

~~Electric Vehicle for shift~~
~~Ford Run without changes~~
~~over.~~

Bug repeating attachment
used on Vic for dance
see if any good

~~Since we have plenty presses~~
~~arrange so one man operates~~
~~12 presses Connect~~
~~Valves by one control~~
~~Rod;~~

~~Keep at Automatic Varnishing~~
~~Machine~~

~~Take up Semi auto~~
~~Table for Printing to~~
~~reduce from 5 men~~
~~to 1 man.~~

~~Keep Dalley on process~~
~~to stop alcohol~~
~~using Rosin & Linseed~~
~~+ equal quantities~~
~~wood & chalk or~~
~~60 chlk 40 wood~~
~~of cost the same~~

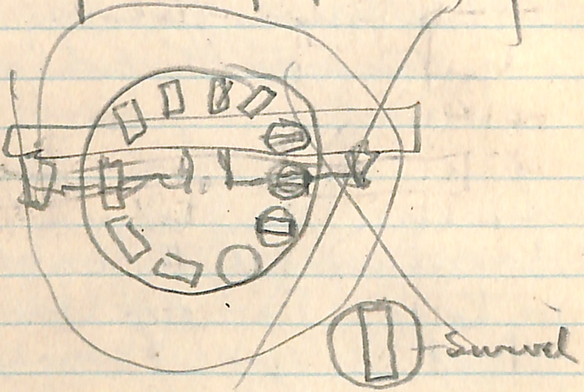
~~Take up with Blair Letters &~~
~~an Elec Vehicle Catalogue~~
~~for General Distribution~~

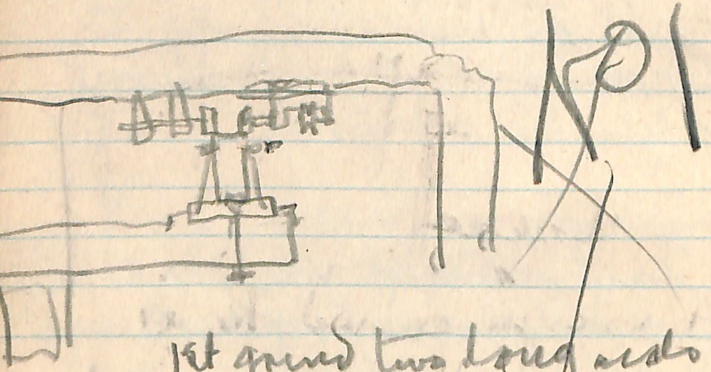
~~Dykeman In buying~~
~~Diamond splints cant~~
~~we take a lot & pick~~
~~what we want & return~~
~~balance American now~~
~~grinds Majority of~~
~~Diamonds & had most~~
~~splints —~~

~~Taylor to start~~
~~Indianapolis Veg Exchange~~
~~E & V.c. service.~~

~~Woodfin start selling~~
~~in Indianapolis;~~
~~as I understand Kipp~~
~~owns retail,~~

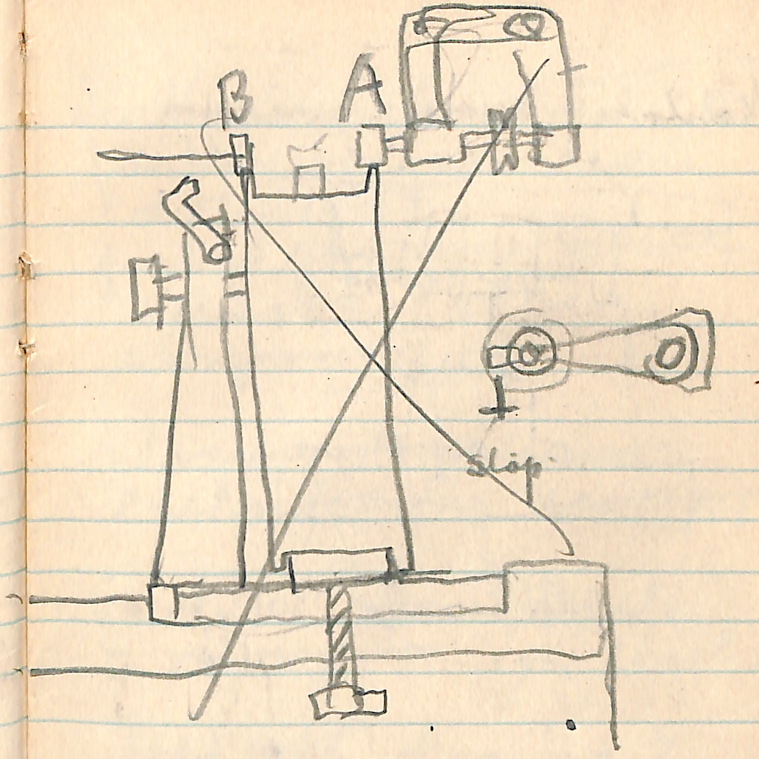
Scheme for opening battery Can by grinding





No 1

1st grind two long sides
then swivel & grind
short sides — [illegible] opposite wheel,
Remove & put in while
Running

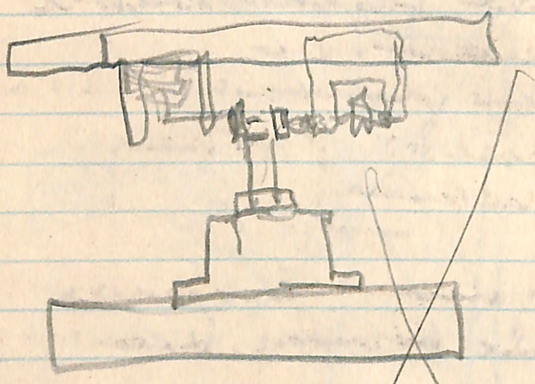


Holder

A rough grind B finish
grind —
Cells sized & selected

A4 to A12 will go
on same swivel for
base

No 2



~~planer~~

should not Ni Element be
loosened up to ~~[illegible]~~,
Clean joints going in acid

Cells Regenerated should
not be welded until
they pass tests. S G

See Hardy about patented
further regeneration
details —
patent glimmer & all
details P & Neg
& Dipping —

~~Advertising question~~
~~Cells Daily Newspaper~~

~~See Luhr about Spcl~~
~~E reproducer V/c club.~~

~~Fred Ott design E~~
~~Repdcr for~~
~~Cheney Sonora~~
~~Pathe Columbia~~
~~Starr — Manufactured by~~
~~Mail order houses~~

~~see about Cabinets for~~
~~Loud machines &~~
~~also patent~~
~~situation & a model~~
~~for mfg —~~

~~Take up Stanley~~
~~Sewall bag plating~~
~~with Folsom~~

~~see Riggs dept~~
~~mousetrap —~~

~~Waldorf to stop~~
~~sending Mail to~~
~~house~~

~~Allington to publish~~
~~a daily & stop~~
~~sending so many~~
~~reports to me~~

~~Send Copy of letter~~
~~to Babson & add~~
~~note F R Bank~~
~~accepts 50% mortgage~~
~~Receipts & warehouse~~
~~F R bank notes~~
~~without renewal~~
~~as no risk & they~~
~~want this kind as~~
~~basis for discounting~~
~~Comml note —~~

~~Put up Vending~~
~~Machine to Simpson~~
~~his man go there~~
~~Ott Cam go on Repairs~~

~~Werner & Hayes to~~
~~make & test best~~
~~model Record~~
~~they have to put~~
~~in safe 1 each~~

Start formula book

~~see if phenol Resin is being made~~

Wedge furnace

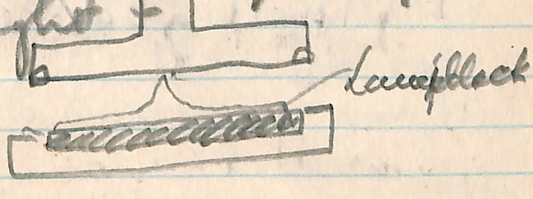
Changing all presses to new style.

~~Patent Removing lithia potash etc from Felspar Slate, Bentonite etc Spodumene - Lepidolite - Process patent & detail patent~~

Push Hanley ~~on~~ Opal

Mfg machinery & test lot of Cells -

~~As a slight pressure on a Lampblack button in phone destroys its sensitiveness it would be best to increase the area of button so while total pressure is great the pressure per 1 square millimeter would be very light & we could get constant adjustment & still be variation of total pressure was large This would permit use of our phonograph Repdcr Weight +~~



~~a Miner brings his crude gold to the Mint~~
~~which purifies + grades it for which he~~
~~receives a gold Certificate. He pays no~~
~~interest, The farmer brings his wheat~~
~~to the warehouse which cleans and~~
~~grades it, he is given a certificate~~
~~which permits him to go to a~~
~~bank and get ½ of the value~~
~~of his wheat in F R currency~~
~~He also like the Miner pays~~
~~no interest,~~

~~Add to Bank plan for Convenience~~
~~The Certificate can be issued~~
~~in fractions Say 50 Bush~~
~~wheat or 100 bush like~~
~~Stocks~~

~~Preference given to farmers~~
~~furthermost away + smallest~~
~~for Storage –~~
~~When registered at W House~~

~~get new book "The Work of~~
~~the Stock Exchange" By J Edward~~
~~Meeker NY Ronald Press Co~~

~~Dalley – Varnish mixed with~~
~~China clay or Bentonite +~~
~~daubed on brick on faces~~
~~of Blocks with Rosin +~~
~~Linseed Coarse ground~~
~~20/1000 brick~~

~~Warehouse Broadcasting~~
~~quoting prices at every~~
~~principal market~~
~~Home + abroad daily~~

~~Store only crude Rice~~
~~not polished Rice~~
~~this is a Milling~~
~~Operation~~

Warehouse certificates are a fractional mortgage all interchangeable & ~~Samp~~ capable of being translated into Currency but not primarily Currency ~~#~~

Get Copy Fed Res act & ammendments since made & administration Dosier of powers

How the Farmer make more money not by increasing price but higher efficiency & less toll from farmer to Consumer

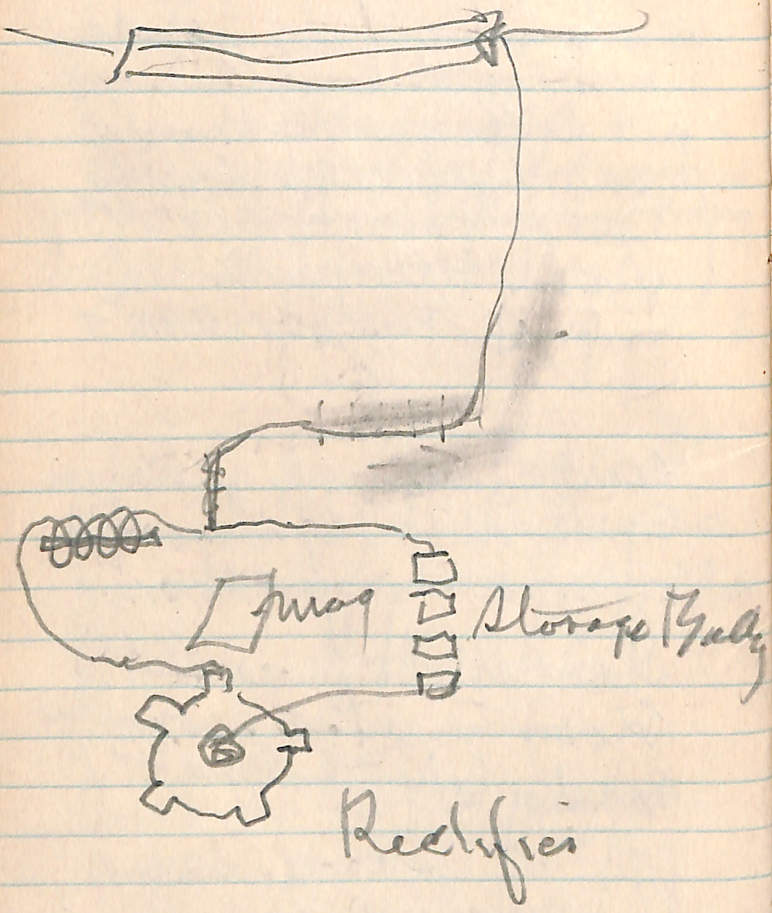
Apl 22/22

Work out scheme trade in cheap Victor & Col & put in Edison Machine for cheap Machine to get allowance back using all parts of Vic & Col possible—

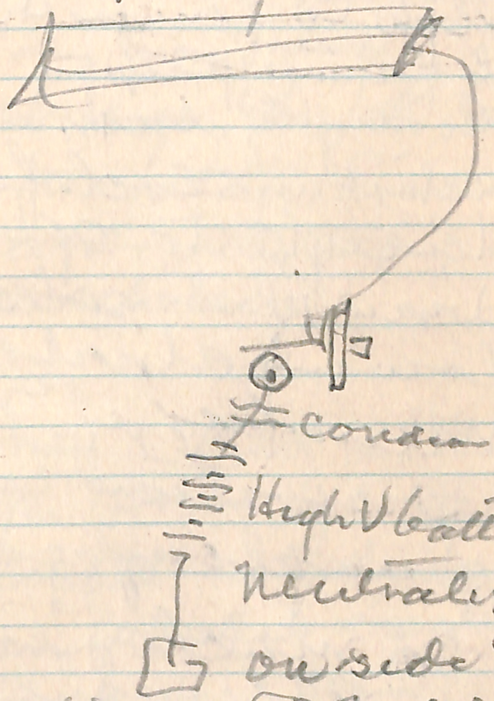
See if cant get a liquid from Crude oil or otherwise with higher boiling point than Straw oil to mix with Rosin to make properties Exactly like Shellac — S

Rig up lap X-ray break wheel & [illegible] very coarse wire Radio

April 22 1922


mag
Storage Batty
Rectifier

Apl 22/92


condsr
High V batty

Neutralizes on side of the wave (ie) Rectify

If Auxiliare N Current + dont let P go thru ?
Can use P + not interfere with wireless
always send out Opp wave

Randolph Co farmers Assn
Each farmer pays in
$1, per month, Assn buys
Tractors and Each farmer
is taught to Operate
& draws lots when
plowing starts
Number of Tractors
in proportion to
acres ploughed
or so much per
100 acres paid
monthly –

~~National Banks showed~~
~~keep up their losses +~~
~~profits, ? ?~~

~~Victor Clubs – Payment loaned~~
~~but any time have~~
~~privilege buy at 6^{50}~~
~~is two latest Dance~~
~~Records with pay put~~
~~in Each leap~~

~~If only 1 sheet is taken~~
~~from Drum then stripped~~
~~& dipped in Selenium~~
~~then washed & solution~~
~~of this passed thru~~
~~metallic Cu it would~~
~~take all the Se out~~
~~by rapid changing &~~
~~filtering of solution~~

What is wanted is Very
Low prices with an
increase in the Margin
of profit — Low wages
with Constancy of
Employment + more
Margin or increased
buying power —

Chloride Potassium has
10.81% K_2O

Sulphate Potash has
12.63% K_2O - sells 1st unit

~~Potas~~ Manures sells 65 cents unit
but what does it mean
K_2O base or what,

Orange

1309 Houses visited in Orange
663 own some kind of
a phonograph

646 Do not own phonograph

Victor have	61%	404
Edison Disc	12 "	83
Sonora	7 "	48
Columbia	4 "	25
Brunswick —	3 "	19
Aeolian	3 "	18
Pathe	1 "	6
all others	8	50
Edison Amberola	1	10

Test Victor Edison
Repdat & Aron
Records + Ok
ones

Inspection

Baake Plating
Fargey Powder Blanks
Santry #24 all around inspector
McDonald Printing Process 24 Bldg
Bissell ES Bat
O'Killoran ESB Extra inspector
Osborn Phono Wks
A E Tuttle General Inspec Everywhere
Burke Investigator
Neill Tester

Testers for Circulating Records #21
Aron Thrall Manning McAllister
Carter

Taylor has ~~[illegible]~~ 19 men
Woodfin 15 men; 10 selling
1 on Shift records 1 Victor Club
2 in office + Rosengberg selling
Expert Outside

For every Ford 2 men
6 Chippendales are
required 3 per man

~~Paullin - Hereafter give~~
~~officials only dessaur~~
~~but good grade —~~

~~Agreement Book~~
~~Chairman Anderson~~

Example: 100 Bushels of Wheat at $1.00 a bushel

Farmer gets 50% loan from Warehouse, say $50

Bank loans Farmer 80% on Equity = $40 - Total received by Farmer $90 - Bank's margin 20%
" " " 75% " " = $37.50 " " " " $87.50 " " 25%
" " " 70% " " = $35.00 " " " " $85.00 " " 30%
" " " 65% " " = $32.50 " " " " $82.50 " " 35%
" " " 60% " " = $30.00 " " " " $80.00 " " 40%

Advt in box 72 boxes
announcing List new Record
to be heard Edison shop
6, Calculate if OK

~~Have permanent man~~
~~at Kipp learn~~
~~Harris method~~
~~doping records~~
~~cleaning them~~
~~previously~~

---

test records in a
box burn out 5
month for good
surface ask Aron
[illegible]

Murder Rue Morgue
15000 words

7.5 min 12" disc – 1 face
15.0 " both sides –
1/2 speed 30 minutes
3 times number of
Records 45 min
90 min 1½ hours
Murder cut to 9000
words 1 Disc –
2 sides.

Up to June 1 1922

% Sales 1148 Records sold in
Orange 4 months Jany to May 1
192

Sold		%	Number in box	
358	Dance	31.10%	24	14.9 v
172	Bands	15	25	7
158	Heart	13.76	58	2.72
78	Orchestra	6.79	20	4.00
76	Odds religious foreign Language Songs not in other Classes	6.62	36	2.00
75	Comic	6.53	10	7.5
55	Venetian	4.79	8	7.0
52	Piano + Zither	4.52	4	13.00 v
36	Banjo Cornet & Saxaphone	3.13	7	10.44 v
34	Opera	2.96	29	1.17
32	Marimba	2.87	5	6.4
22	Violin Cello	1.91	14	1.57
1148				

Chemical Telgh paper

Most delecate test dissolved Copper.
$1\frac{1}{2}$ grm Each Alpha Naphtol &
Paraphenylendiamine &
NaOH, dissolved in
100 parts redistilled water
its diluted 100 to 1 to 3cc
of sol to be tested add ½cc of
above & heat to boiling -
Red or Violet Color given
0.000000005 % detected

Also Ni + Dimethylglyoxime

14 Fords

Labor	162	24
Material	18	44
gas	224	213

Cost to Operate	2894
Rent	750
Insuran	466

Total - $41.10

Chem Telegh Paper

2 grms Phenophthalein
20 grms CP KOH.
in 100 cc pure water
will give a pink coloration
One part Copper 100 million
parts water.

Feby 1 to June 16
Orange Record for sales

16	Chip	11.65 %
20	Sheraton	14.6
89	Hepplewhite	65
6	Chalalets	4.35
1	Wm & M upright	
1	Wm & M Console	
4	C 450	

population 106 000

Orange E Orange W Orange
S Orange

4 Months Sales Records 6 clubs
96 each.
Each record of the 240 averaged following sales

~~Dance~~	~~15.6~~
~~Marimba band~~	~~14.6~~
~~Hawaiian~~	~~10.~~
~~Comic Talking~~	~~7.6~~
~~Banjo~~	~~7.3~~
~~Band~~	~~6.1~~
~~Comic Singing~~	~~6.1~~
~~Zither~~	~~6~~
~~Venetian Trio~~	~~5.5~~
~~Piano~~	~~5.5~~
~~Orchestra~~	~~3.18~~
~~Relegious~~	~~2.78~~
~~Heart Songs~~	~~2.68~~
~~Violin~~	~~2 42~~
~~Foreign dance songs~~	~~1 45~~
~~Opera~~	~~1 15~~
~~Cello~~	~~0 .50~~

240 in 1st year Orange boxes
Sales

	in box	Sales	% of sales	Sales per sample
Dance	23	362	31.4	15.75
Piano	3	45	3.9	15
Hawaiian	2	20	1.7	10
Xylophone	3	23	1.9	7.66
Comic Talk	5	38	3.2	7.6
Banjo	3	22	1.9	7.3
Venetian Trio	7	47	4.1	6.71
Band	23	144	12.6	6.26
Comic Singing	6	37	3.2	6.1
Cornet	4	24	2.1	6
Whistling	1	6	.052	6
Marimba	2	9	.77	4.5
Orchestra	22	86	7.46	3.9
Relegious	14	39	3.37	2.79
Heart Songs	71	187	16.2	2.60
Violin	8	17	1.46	2.12
Opera	30	33	2.87	1.1
Foreign Lang Songs	9	9	.77	1.0
Cello	4	4	.24	1.0
	240	1152		

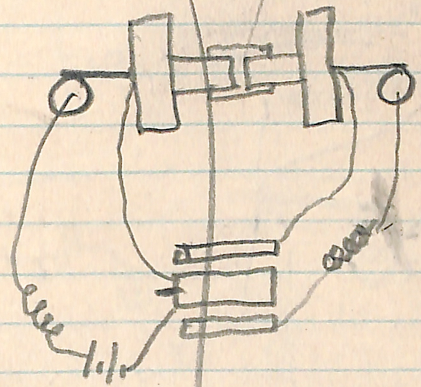
325 Million meters
or waves 1 second.

1 Meter wave length
requires 325 Million
vibrations per second
10 meter 32 1/2 Million sec

Ford 48 plate cell - too thin
asbestos -

200 amp discharge 30 seconds
reaches 4 Volts which
is generally OK for starting
150 amp rate 150 seconds 2 1/2
100 " 420 " 7 min
50 " 1320 " 22 min
50 Equals 150 amp rate on
A4 -

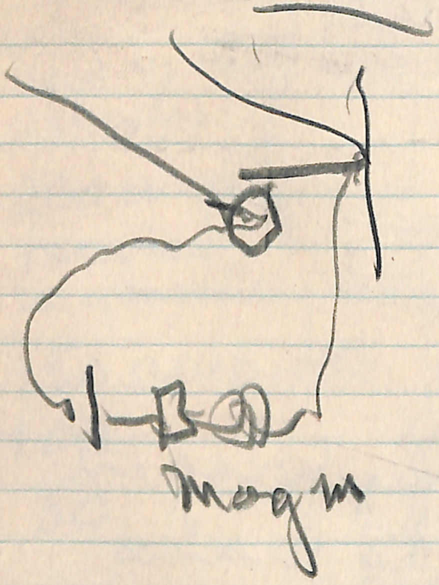
5 ft Column Carborundum
percolates 1 1/2 gal per
sq ft 24 hours
~~of~~ or 2.5 inches
24 hours of Column



Give Hanley proper
stuff to make
porosity in
Asbestos

Woodfin does cables
include Victor owner
change of all per rate

Dif des const def
Machine

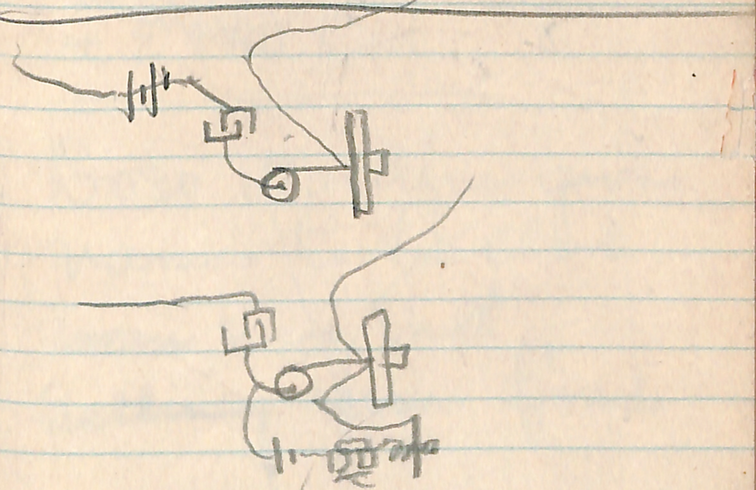


$60, bench [illegible] J
J-40 - Dealer, 85

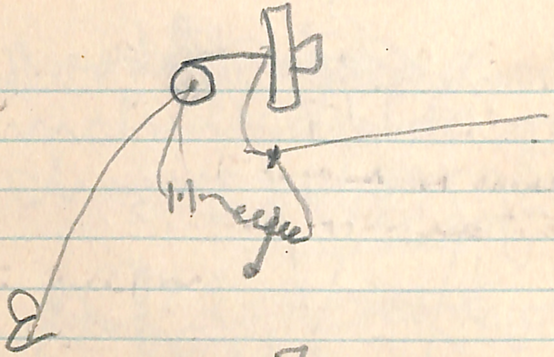
75 - Job 45 - Dealer 40
100 Job 50 - " 40
125 " 50

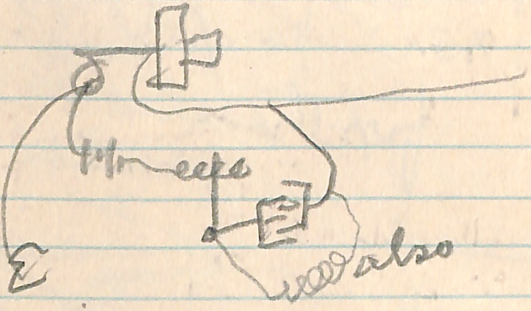
wrong

fix the above



all alarms





In New England + N.Y.
Establish in towns record
dealers ~~not in~~ towns
without dealers —
Then in these towns put 2
man in distinct selling
2 genl men N + S N ~~J~~ Jersey

do it in New England
Man in Me NH + Vt
~~Ea~~ & West Mass R.I.
+ E + W Con

Does Woodfin gives
names to Vic Club
~~[illegible]~~ men that
Selling man find

~~When Vandervoort goes & takes charge he gets minute written instructions what to do & what not to do—~~

~~Ignite the asbestos and soak in Rubber thin cement see if it toughens it—~~

~~Perhaps new asbestos without starch will not be so brittle after ignition—~~

Tremolite not affected by heat. $CaMg(SiO_3)4$

Actinolite $Ca(MgFe)_3(SiO_3)_4$

Crocidolite (Blue) $NaFe'''$
$(SiO_3)_2 (Fe''SiO_3)_3$

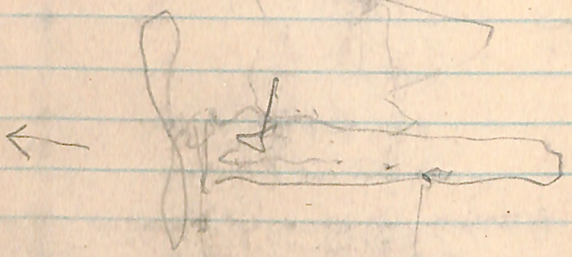
Serpentine (Canada)
$H_4(Mg\ )(SiO_3)_2$
$H_4Mg_3Si_2O_9$

Schmuck will try Serpentine asbestos with Lime like K_2O process on Felspar 30 days or more at 180

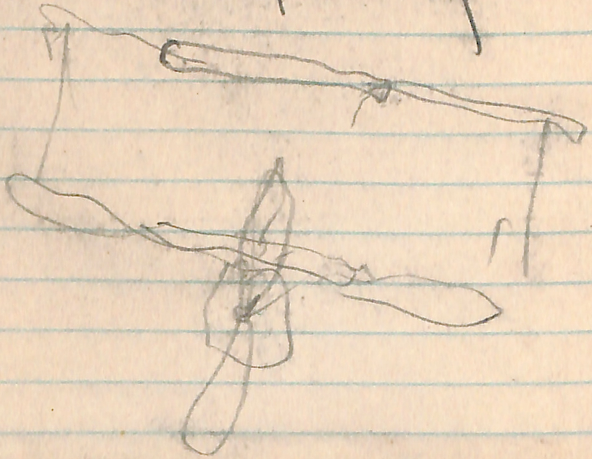
1050 ft sec

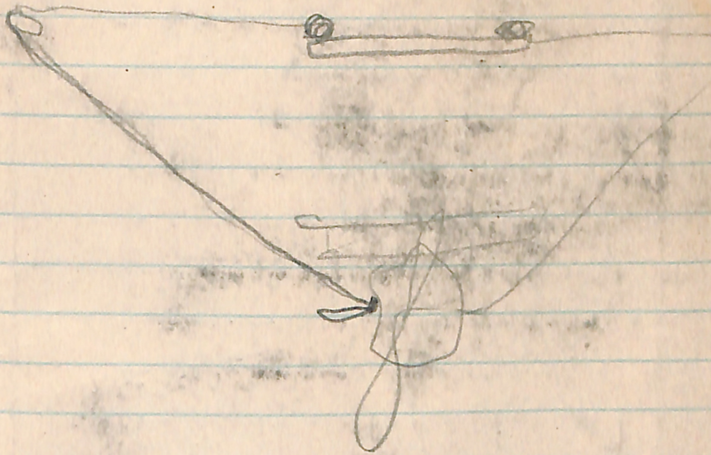
180,000 lbs – stopped over 1 ft
in 1 sec. 1

1 lb 1 ft. 1 ft. 1 lb



1- Loosen propellor
2 Drop Motor
3 Throw up sheeting



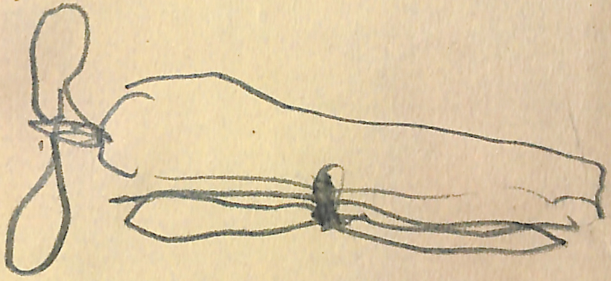


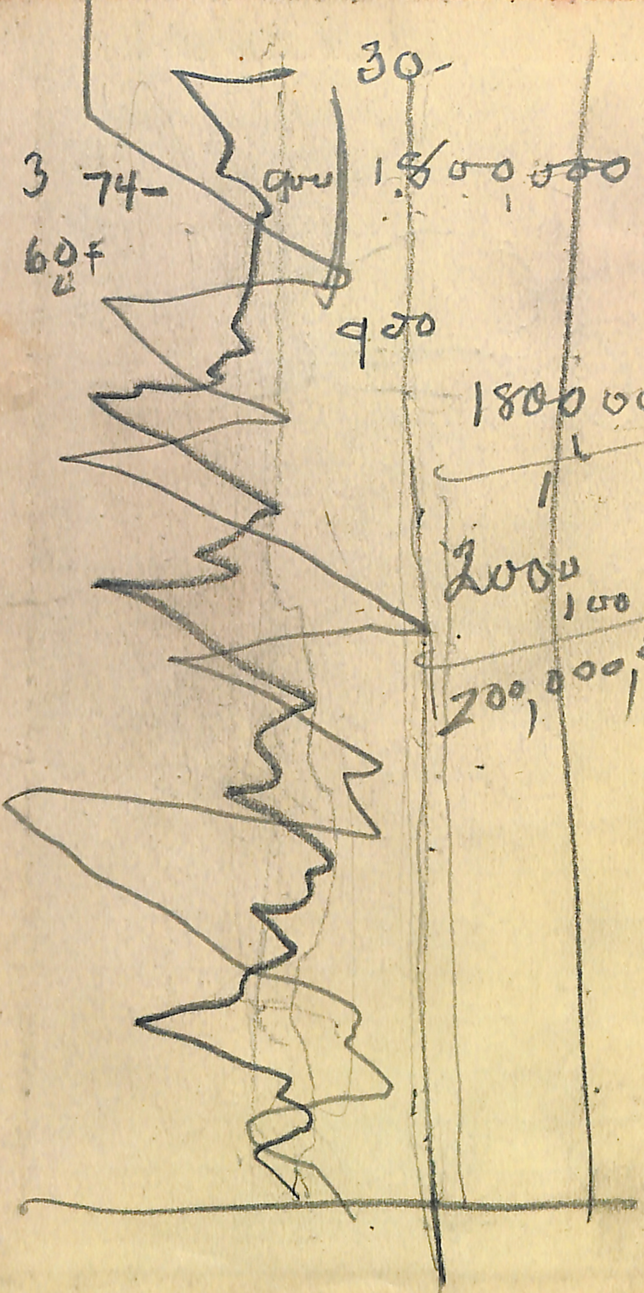
1000 ft sec

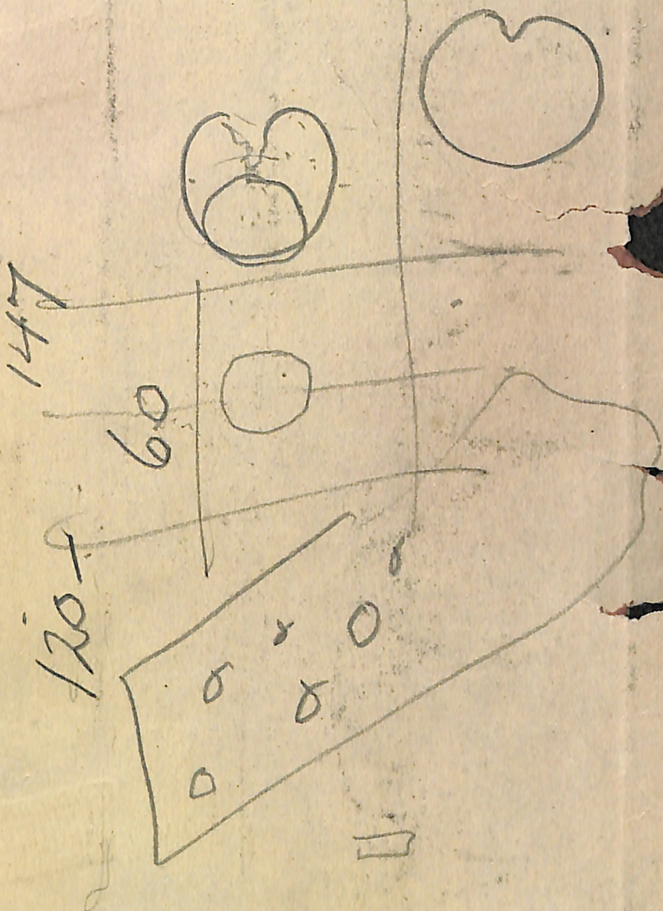
180,000 lbs – stopped
in 1 sec. 1

1 lb 1 ft.

1–
2
3




30-
3 74-
60
900 1.800000
900
1800000000
1
1
2000
100 000
200,000,000
1


147
60
120